



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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**POLLUTION REPORT
LIBBY ASBESTOS
Libby, Lincoln County, Montana**

I. HEADING

Date: November 29, 2000
Site Name: Libby Asbestos (Export & Screening Plants)
From: Paul Peronard, OSC
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To: Patty Smith, EPA Headquarters
POLREP No.: #2

II. BACKGROUND

Site No.: BC
Response Authority: CERCLA
CERCLIS No: MT0009083840
NPL Status: NA
Action Memorandum Status: Approved 5/23/00
Start Date : 6/01/00
Demobilization Date: TBD
Completion Date: TBD

III. SITE INFORMATION

A. Incident Category

Time Critical, Fund-Lead and PRP-Lead

B. Site Description

Vermiculite was discovered in Libby, Montana, in 1881 by gold miners and in the 1920's the Zonolite Company began mining it. Before the mine closed in 1990, Libby produced about 80% of the world's supply of vermiculite. Vermiculite has been used in building insulation and as a soil conditioner. In Libby, refining operations handling materials containing amphibole asbestos fibers, occurred at four main locations:



- The Mine and Mill located on the Rainy Creek Road on top of Zonolite Mountain;
- The Screening Plant (screening and sizing) and Railroad Loading Station which are located astride the Kootenai River (Intersection of Highway 37 and Rainey Road), and occupy approximately 21 acres
- The Expansion/Export Plant (exfoliation and shipping) which is located off Highway 37 at the end of Lincoln Road, and occupies approximately 11 acres.

1. Site Location

The Site is located in Montana within Sections 3 and 10, T.30N., R.31W. of the Libby Quadrangle in the County of Lincoln.

2. Description of Threat

Recent sampling conducted by EPA's removal program in December 1999 through April 2000 detected amphibole asbestos fibers at concentrations of concern in indoor air samples collected at the Screening Plant and at the Export Plant. These sample results indicate an on-going risk to workers and residents at and near these locations. The Screening Plant is now a primary residence and nursery business with two main occupants. The Export Plant is owned by the City of Libby but is leased by a lumber yard. The Export Plant is located adjacent to a large open field that was formerly used as two baseball fields. Access to the area is unrestricted during non-business hours. The potential release to the residents of Libby and surrounding communities is lingering asbestos contamination related to a vermiculite mine site located approximately 7 miles north of the town. In the past, former mine employees, family members, and residents of Libby and surrounding communities have complained of respiratory illness. The individuals affected in the incidents speculate that the symptoms may be the result of asbestos exposure during mining operations and subsequent years following the closure of the mine.

C. Preliminary Assessment/Site Inspection Results

The initial investigation revealed two important findings:

- There are a large number of current and historic cases of asbestos related diseases centered around Libby, Montana; and
- High amounts of asbestos contaminated vermiculate remained at the Screening Plant, the Export Plant, and in the tailings pile/pond at the mine as well as in and around residents in Libby.

At the Screening Plant, amphibole asbestos was detected using polarized light microscopy (PLM) in 84 of 102 samples collected, with 18 samples containing asbestos at or above 2% by weight and one sample as high as 4% asbestos. Also at the Screening Plant, rocks containing high concentrations of fibrous form amphibole asbestos have been uncovered. Based on the pit tests recently

performed, soil contaminated with greater than 2% asbestos was found at several areas at 10- foot depth.

Similarly, at the Export Plant, 76 out of 109 samples contained detectable levels of amphibole asbestos by PLM, with 17 samples containing asbestos at or greater than 2%, and one sample measuring 10%. At both properties, pockets of unexpanded and expanded vermiculite are visible at the surface in many locations.

IV. RESPONSE INFORMATION

A. Situation

1. Current situation/removal actions to date:

The Export Plant (60% Completion): (See initial report for background information)

- **Removal Activities:** *On October 2, 2000, W.R. Grace moved the Millwork West's lumber operations to the new temporary location off Highway 2. The Planer Shop, Warehouse, Lumber Storage, and a Small Shed had been decontaminated and passed the final clearance test. In general, decontamination of the buildings consists of removal of interior walls, wooden floor, and roof; power washing inside the building; and spraying encapsulant to the interior walls. Approximately 50 cubic yards of soil from a pit that contains oil/diesel on the southwest corner of the Site was removed and will be disposed at the Zonolite mine after the State approves it. The steel rail and railroad ties from the southern area were removed by the Burlington Northern Railroad. Excavation around the rail spur and the Export Plant areas is scheduled to be completed by W.R. Grace on the week of November 27, 2000. The concentrated calcium chloride in powder form was sprayed at the Export Plant and the Rainey Creek road for dust control. The EPA is continuing oversight of clean-up activities. The removal activities at the Export Plant is scheduled to be completed by December 15, 2000.*
- **Disposal Activities:** *As of November 27, 2000, 31 truckloads (approximately 310 cubic yards) of debris were disposed at the toe of the 12th level dump at the Zonolite mine. This material included debris, associated with building decontamination, and unsalvageable items throughout the Export Plant. Approximately 1,800 cubic yards of excavated soil were disposed at the area adjacent to the Glory Hole of the mine. Seven thousand (7,000) cubic yards of borrowed material have been backfilled at the Site.*

The Screening Plant (80 % Completion): (See the initial report for background information)

- **Removal Activities:** *As of November 17, 2000, all of the Raintree Nursery and Wise properties have been completely excavated and backfilled. Based on the test pits performed, soil contaminated with greater than 2% asbestos was found at several areas at a 10-foot depth. For the approximately 40,000 cubic yards of asbestos-excavated soil, EPA is still temporarily stockpiling debris and excavated soil in the long shed and has implemented winter erosion control measures. Five sediment basins were installed to collect any run-off water from the temporary stockpiles. A special membrane was placed at four-foot excavation depth prior to backfilling on the north side of the Site. The final grading at the nursery was completed on November 20, 2000, using approximately 45,000 cubic yards of borrowed fill materials imported from the Plume Creek and Nixon pits. The site is scheduled to be shut down for the winter on November 30, 2000.*

Since the Site was recommended to the National Register of Historic Places, significant cultural artifacts and dateable organic items (i.e. bone and charcoal) which are approximately 7,000 years old, were found by archeologists at the south end of the Screening Plant.

EPA is finalizing the settlement with the Parkers (Raintree's owners) for the demolished house/business house, greenhouses, and unsalvageable items at the nursery.

- **Disposal:** *Because W.R. Grace refused EPA access to the mine for a repository, EPA is working with Lincoln County and proposing to build a separate cell adjacent to the existing landfill for an alternative repository site.*

Medical Testing Program: (See the initial report for background information)

- *As of October 31, 2000, 6,415 appointments have been scheduled and 5,939 individuals have been screened. For individuals in Elko, Nevada, 93 appointments have been scheduled and 70 individuals have been screened.*
- **Preliminary Analysis Results:** *For X-Ray data, ATSDR reported for 4,220 participants and detected abnormalities in 313 (5-6%) - 125 were heart-related, 60 showed a density in the lung, and 35 detected pleural thickening. Abnormal x-rays are referred to the participant's personal physician for diagnosis and treatment.*

On-Going Projects:

- *Performance Evaluation Project - EPA has tasked USGS to perform fiber research, performance evaluation sample preparation, and AVRIS flyover with data interpretation.*
- *The Phase II-Draft Sampling Plan to focus on residential sampling has been developed and sent to HQ (OPPT, OERR) for a second review. The sampling activities for approximately 30 homes in Libby (Montana) are anticipated to be conducted in February, 2001.*
- *On September 29, 2000, the ISSI Consulting Group, which has contracted with EPA to manage the sample databases, to develop and refine analytical methods in solid media, and to update the risk assessment protocol for the Libby Asbestos Site, informed EPA that the company was having financial difficulties and on the verge of filing bankruptcy. As a result, EPA is immediately tasking DOT (Volpe Center) to take over this time-critical Performance Evaluation Study Project.*
- *Anticipated Critical Deadlines: Phase II-Draft Sampling Plan to focus on residential sampling (December, 2000) and Draft Risk Assessment Protocol for Peer Review (April, 2001).*

Asbestos and Public Health Conference (21-23, 2000):

More than a hundred of Libby's residents attended the three-day conference in Libby. Some residents came to learn more about asbestos-related illnesses, roles and responsibilities of different agencies, and status of clean-up/sampling activities in Libby. Others came to express their anger and frustrations of not receiving health care support for asbestos victims. The conference was sponsored by EPA, ATSDR, MT Dept. of Environmental Quality, MT Dept. of Public Health and Human Services, OSHA, MSHA, NIOSH, St. Johns Lutheran Hospital, and several local health agencies.

ATSDR, PHHS, and EPA representatives reiterated commitments to provide environmental clean-up, support, and explore potential ways to pay for the medical coverage for victims of asbestos-related diseases.

2. Enforcement

- *On September 28, 2000, W.R. Grace sent a 30-page letter commenting on EPA's Unilateral Administrative Order and the Administrative Records. In the letter, W.R. Grace said: "Nothing in EPA's letter (July 26, 2000) changes our conclusion that the order to perform the time-*

critical removal action is arbitrary and capricious EPA's action is otherwise not in accordance with the law and is inconsistent with NCP." The content in this letter is focused on the Export Plant removal action. W.R. Grace will send another letter to comment on the Screening Plant and other aspects of the administrative record. The EPA team has been working to respond to the W.R. Grace's letter.

- In the past, W.R. Grace has refused EPA access to the KDC properties for asbestos removal activities. These two properties are part of the Screening Plant. On September 14, 2000, EPA filed suit in U.S. District Court in Missoula, Montana against W.R. Grace seeking to access the KDC properties for removal and the mine for repository. On October 19, 2000, W.R. Grace sent a letter voluntarily offering to cleanup the KDC properties. A court hearing is scheduled for December 1, 2000 in Missoula, Montana.*
- On November 16, 2000, EPA sent a letter to W.R. Grace addressing the concern of asbestos-airborne dust detected at the Rainey Creek Road. This could result in a stop of truck hauling of asbestos-excavated soil to the Zonolite mine. During the week of November 10, 2000, elevated concentration of asbestos were detected due to lack of dust suppression.*

B. Planned Removal Actions

- Continue revamping and developing the sampling and analytical techniques as well as revising the risk assessment model for tremolite asbestos risk.*
- Continue to oversight the removal activities at the Export Plant and implement winter erosion measures at the Screening Plant.*

C. Next Steps

- EPA is working with ATSDR, Public Health Services (PHS) , Montana Department of Health and Human Services (MDPHHS) and locals to identify short term and long term needs of cleanup and health care for the Libby community.*
- ATSDR is working with the state and local health authorities to transfer the medical testing program by the end of November, 2000.*
- For national consistency on clean-up action levels for asbestos related removals, Region VIII has worked closely with NIOSH, HQ and other EPA regions to develop or revamp the risk assessment model and clean-up action levels for residential clean-up including asbestos associated with attic insulation.*

D. Key Issues

- *Establishing a repository for the excavated soil and debris at the Screening Plant.*
- *Seeking agreements to access 1) the mine (oversight and repository), and 2) KDC properties adjacent to the Screening Plant for cleanup (which now is owned by W.R. Grace).*

V. COST INFORMATION

Total Site Ceiling	\$5,815,000
Committed Costs (as of 9/30/00):	\$3,589,273

VI. DISPOSITION OF WASTES

(None at this time)